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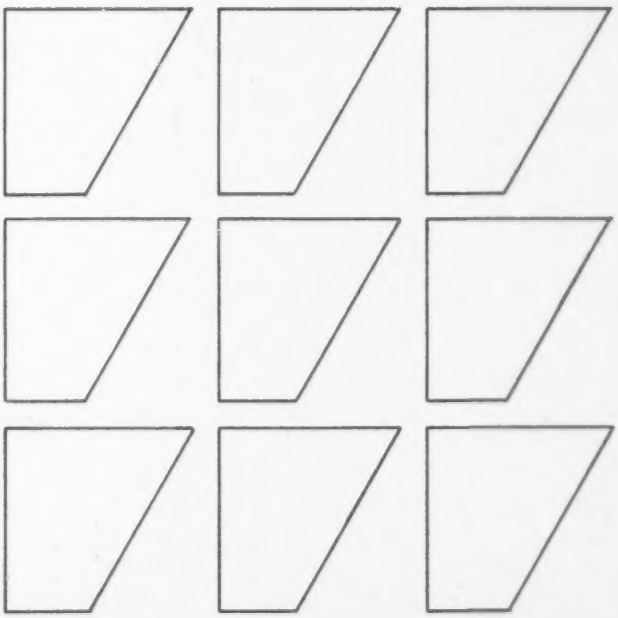
Monograph 1981–4

Measuring The Importance Of Small Business In The American Economy

By Lawrence J. White



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Biographical Note

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Abstract

This study tries to measure the role that small business has played in the U.S. economy in the past two decades. We first examine a number of the economic aggregates that might serve as the bases for measurement, and the advantages and drawbacks of each are discussed. We then turn to the data and find that, on a number of measurement bases, the relative position of small business has been declining across the entire economy. But this pattern is the product of two sub-patterns: more severe declines within individual sectors (e.g., manufacturing), cushioned by the shift of the economy away from manufacturing and mining and toward services, retailing, and wholesaling, where small business is more prevalent.

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TABLE OF CONTENTS

1. Introduction 1

2. Definitions and Measurement Problems 3

   A. "Small Business" 3
   B. Measures of Importance 3
   C. Relative Importance 5
   D. Sectors Analyzed 6

3. The Data On Small Business 8

   A. Numbers of Firms—IRS Data 8
   B. Employment by Establishment—County Business Patterns 9

C. Employment and Sales by Firm—Enterprise Statistics 14
D. Sales by Firms—Statistics of Income Data 20
E. Gross Product Originating in Small Business—Data Compiled by Joel Popkin and Company 22
F. A Comparison of the Data Sets 24

4. Conclusions From This Study 30

Appendixes: 32

Table A1—Establishment Data from County Business Patterns 32
Table A2—Company Data from Enterprise Statistics 36
Table A3—Company Data from IRS Statistics of Income 38

References

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I. Introduction

For the defenders of and believers in small business, the world is best described by the opening lines from Charles Dickens' *A Tale of Two Cities*: "It was the best of times, it was the worst of times. . . ."[1] The titles of some of the sections of a recent report by the U.S. House of Representatives' Committee on Small Business can illustrate this point:

—Small business is the "cutting edge" of competition;
—Small business is the vanguard on innovation and invention.
—Small business is the Nation's job creator;
—Small business is a source of leadership;

but also

—Manufacturing assets and the decline of small business;
—Sales and the decline of small business;
—Industry concentration and the decline of small business;
—Retailing and the decline of small business;
—Small business: a major victim of inflation's "squeeze"[2]

Unfortunately, much of the discussion of the role of small business in America has been long on rhetoric and emotion and short on facts.[3] It should come as no surprise, then, that public policy with respect to small business has lacked coherence and consistency.

This monograph will have a number of purposes. First, we intend to demonstrate that a considerable amount of hard information can be marshalled to examine questions concerning small business—more information than is generally recognized to be available. But, second, the information needs to be handled and interpreted with great care. Definitions are extremely important, and the choice of measurement bases can strongly influence the outcomes that are perceived. And, third, we intend to provide some measurements of the importance of small business in the U.S. economy.

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[1]Dickens (1859, p.23).

[2]U.S. House of Representatives (1979).

[3]See U.S. House of Representatives (1979) and U.S. Senate (1978).

In Section II we address the definition and measurement problems. We note the biases inherent in a number of measures and the problems posed by the absence of a standard definition for the upper limit of a "small business." These problems and the limitations of data availability force us to use a number of measurement bases and size cut-off points for our measurements; we also calculate Gini coefficients so as to incorporate broader size effects that might be hidden by a focus on a single size cut-off point.

Section III provides our measurements and major results.[4] The data show that the aggregate numbers of small businesses in the U.S. economy have continued to increase through all the time periods for which data are available; a picture of small business being decimated and no longer a significant factor on the U.S. economic landscape is simply inaccurate. However, the relative economic importance of small business in the overall economy has declined modestly during the past decades. Within most sectors of the economy, the decline of small business has been more severe. But this severe effect has been moderated by the changing emphasis of the overall economy—away from sectors like manufacturing, in which small business has not been prevalent, and toward sectors like retailing, wholesaling, and services, in which small business has been prevalent. Thus, an examination of the pattern in an individual sector, (e.g., manufacturing) frequently gives a misleading and more dismal picture than does an examination of the entire economy.

Finally, in Section IV we offer some brief conclusions from this study.

[4]Earlier surveys are found in Stockwell (1958), Duesenberry (1958), Markham (1958), McNulty (1958), and Weston (1968).

II. Definitions and Measurement Problems

At the beginning it is worthwhile establishing some definitions and discussing the measurement problems. Vagueness in these areas has frequently contributed to misunderstandings and misinformation concerning small business.

A. "Small Business"

Defining this term is crucial to a proper study. Unfortunately, there is no standard definition of "small business." Instead, the concept seems to be quite flexible, encompassing a number of different sizes of firms (U.S. SBA, 1977, part II). Following this tradition, we will not try to establish an absolute definition but instead will present results for a number of size classes.

B. Measures of Importance

This monograph will confine itself to economic concepts. Despite this restriction, there are a variety of measures that can be used to indicate the importance of small business: the number of firms, their assets, their sales, their profits, their employment, their payrolls, or their value added.

The economist's first choice in such matters is usually value added: the difference between sales revenues and the costs of raw materials, semifinished components, and purchased services. Value added thus measures directly the activity of the firm, encompassing the land, labor, and capital that the firm applies to the materials and services it has bought from other firms so as to produce the product or service which it in turn sells.

Unfortunately, value added data by size classes—the data needed for measuring the relative importance of small business—are collected and reported regularly only for the manufacturing sector. Data are more readily available for some of the direct or indirect components of value added: payrolls, profits, employment, and assets. But each partial measure has its problems. Because small firms tend to be more labor-intensive than large firms, measures based on employment tend to over-represent the relative *economic* importance of small

firms. Since small firms also tend to pay lower wages, a payroll measure could either over or under-represent the importance of small business. Similarly, because small business tends not to be capital-intensive, measures based on assets or on profits will under-represent small business' importance. Also, double-counting will bedevil any asset data that include the financial sector, since the assets of the financial sector (e.g. loans) represent the liabilities of other sectors, which in turn have used the proceeds of those loans to invest in assets of their own (e.g. plant, equipment, and inventory). Further, measures expressed in dollar terms may require adjustments for inflation if comparisons over time are made. In this respect, employment measures, since they are in physical terms, have an advantage.

Sales revenue measures are also available. Again, because they are in value terms, they may require adjustments for inflation. Sales measures tend to over-represent the importance of firms that apply only a small amount of processing to purchased components and then resell them (e.g., a wholesaling or jobbing firm). Correspondingly, sales measures also tend to under-represent the firms that are more vertically integrated and attach more value added to the purchased components before they are sold. Further, there are obvious problems of double-counting when sales measures are used across a number of sectors. And the inclusion of the financial sector once again causes problems, since this sector measures its "sales" quite differently from other sectors. The financial sector typically reports as sales the gross commissions or fees earned (i.e., its gross margins). By contrast, a sector like retailing measures as sales the revenues from the sale of goods, which is the sum of its margins *plus* the wholesale cost of the goods.

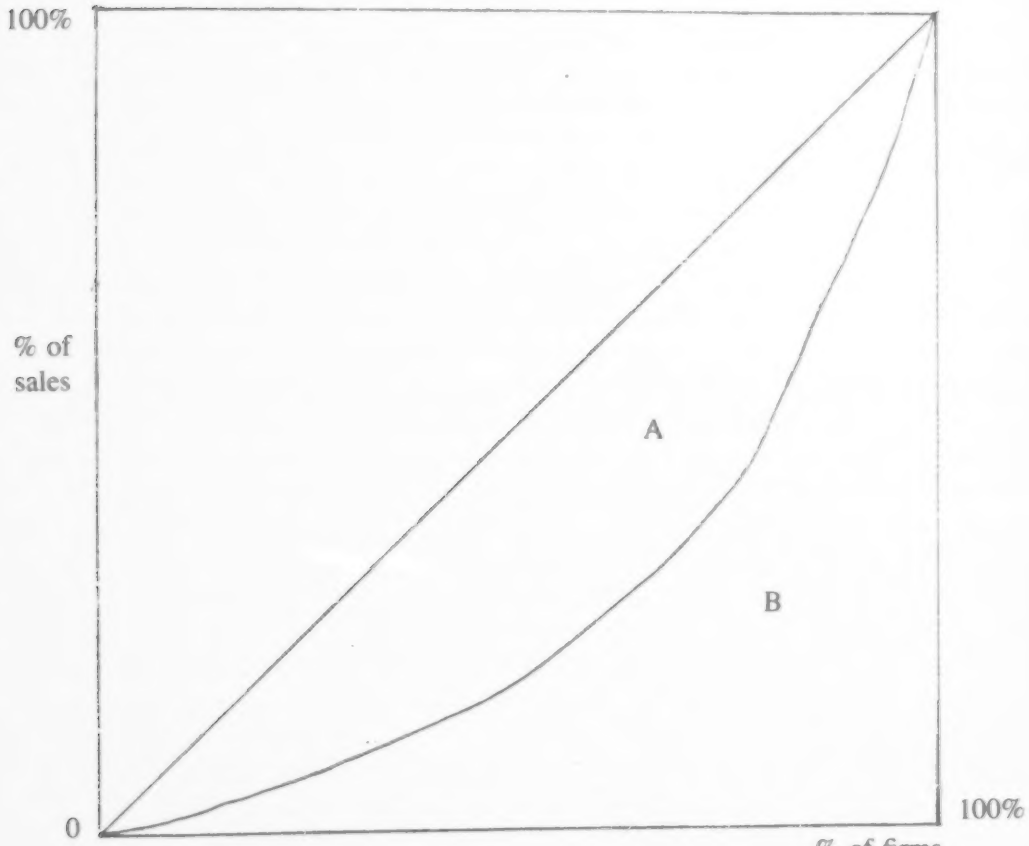
Finally, data on the numbers of firms themselves can tell us about absolute and relative numbers, which is of interest, but cannot tell us about relative economic importance.

In the end, no data set is ever perfect, and compromises have to be made. It is usually data availability that is the controlling factor in the approach used, and data reported in this paper will be no exception. Data on employment and on sales are the most consistently available for the longest time period. For better or for worse, it is these data that have been used directly in this paper. They also serve as the basis for estimates of value added that have been made by another study (Joel Popkin and Company, 1980), which will be summarized here.

C. Relative Importance

This paper will use two standard measures to show *relative* importance. First, simple percentages will be presented (e.g., the percentage of total employment accounted for by firms with fewer than a given number of employees). Second, because simple percentages may hide distributional changes below or above the cut-off point, a broader measure of the size-distribution of firms will be presented: the Gini coefficient. The Gini coefficient measures the difference between the Lorenz curve (indicating the cumulative percentage of activity encompassed by the cumulative percentage of firms, when firms are arrayed from the smallest to the largest) and a line that would indicate complete equality in the size of firms (see Figure 1). Thus, the Gini

Figure 1



$$\text{Gini coefficient} = \frac{\text{Area A}}{\text{Areas A} + \text{B}}$$

coefficient incorporates all information on all sizes of firms, rather than just the information up to an arbitrary cut-off point. The Gini coefficient can range between 0.0 (complete equality, all firms are the same size) and 1.0 (complete inequality, one firm accounts for virtually all activity and all other firms account for virtually nothing). The drawback to the Gini coefficient is that it is insensitive to the absolute numbers of firms; i.e., a universe with only two firms that are of equal size and a universe with a million firms of equal size would each have a Gini coefficient of 0.0. This can be a worrisome problem when the Gini coefficient is used as a surrogate for industry concentration in narrowly defined industries. For the purposes of this paper, in which broad sectors will be analyzed and compared over time, this problem should not be serious.

D. Sectors Analyzed

Statements about and data pertaining to small business frequently cover only the manufacturing sector of the economy. This is understandable. The data here are best; the Bureau of the Census compiles quite detailed reports on a regular basis; and manufacturing tends to be associated with the "heart" of the American economy. But the relative importance of manufacturing has been declining in the U.S. economy. Value added in manufacturing currently constitutes less than 25% of U.S. GNP; even if we take only the portion of GNP originating in the private sector as a base, manufacturing accounts for only 27.6% (see Table 1). Similarly, manufacturing accounts for only a quarter of private sector employment.

Accordingly, in order to assess the status of small business in the economy, it is important to look beyond manufacturing and include the other areas in the private sector as well. This study will do so.

TABLE 1

Percentage of GNP and of Employment Originating in Various Sectors of the U.S. Economy, 1978

	% of GNP	% of GNP (Excluding government)	% of employment	% of employment (excluding government)
Agriculture, forestry, fisheries	3.0%	3.5%	3.5%	4.2%
Mining	2.6	3.0	0.9	1.0
Construction	4.7	5.3	4.4	5.2
Manufacturing	24.2	27.6	21.2	25.2
Transportation	3.7	4.2	3.0	3.5
Communications	2.6	3.0	1.3	1.5
Electric, gas, sanitary services	2.5	2.8	0.8	1.0
Wholesale trade	17.2	19.6	5.1	6.1
Retail trade			15.1	18.0
Finance, insurance, real estate	13.8	15.7	4.9	5.8
Services	12.5	14.2	11.7	19.9
Government and gov't enterprises	12.1	—	16.1	—
Rest of world	1.0	1.1	—	—
Self-employed and family workers, non-agricultural	—	—	7.1	8.4

Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract, 1979*, pp. 403, 410-412, 439.

III. The Data on Small Business

A. Numbers of Firms—IRS Data

As a start, it is probably useful to realize that the number of business firms in the United States has been growing, not shrinking, in the three decades since World War II. Table 2, which is based on tax returns filed with the U.S. Internal Revenue Service, presents these numbers. The data appear to be quite comprehensive and are internally consistent over the time period (i.e., we do not have to splice together two or more different data sets). Between 1947 and 1975, the number of firms grew by 16%, or a 3.1% annual rate. Most of these firms are small; in 1975, 65% of the total had business receipts of under $25,000; 85% had receipts under $100,000. Most of the net increase of 5.9 million firms between 1947 and 1975 is attributable to small firms.

Thus, any claims that small firms are disappearing from the U.S. economy or that they can no longer survive are simply not true. The American economic landscape is liberally sprinkled with small businesses, and their numbers continue to grow.

These numbers, however, tell us little about the *relative* economic importance of small business. We now turn to four sets of data which can provide inferences on relative importance.

TABLE 2

Number of Business Firms in the U.S. Economy, 1947-1975

Year	Number of Firms	% annual rate of increase
1947	8,065,000	
		3.0%
1953	9,372,000	
		2.8
1958	10,744,000	
		1.9
1960	11,165,000	
		0.4
1965	11,417,000	
		1.0
1970	12,001,000	
		3.1
1975	13,979,000	

Source: Internal Revenue Service Data, as reported in U.S. Dept. of Commerce, Bureau of the Census, *Statistical Abstract*, various years.

B. Employment by Establishment—County Business Patterns

The first data set is compiled by the Bureau of the Census, in the annual publication *County Business Patterns*. The data consist of employment by *establishment*, based on Social Security records. The data are currently available in usable form for 1962 and 1964-1977. Coverage of workers over this period is reasonably uniform, with only self-employed physicians being added in the mid-1960s. Excluded from the data base are farmers, the self-employed, domestic service workers, and railroad employees.

An establishment is essentially a separate geographic employment location, which may not be synonymous with a separate business firm. Thus, separate stores of a chain-store company or separate plants of a multi-plant manufacturing firm would be individual establishments. (Prior to 1974, however, all of the establishments of the same company within any county were lumped together as a single reporting entity; for 1974 and after, they are listed as separate establishments.[5]) Accordingly, this data set is not an ideal one for our purposes, since we seek measures of the relative importance of small business firms. But to some who are concerned about the problems of size, it may be the size of the workplace (rather than the size of the overall business unit) that matters; (e.g., a worker's satisfaction with his/her job may be more dependent on the size of the establishment than on the size of company [Kwoka, 1980]). The establishment data can provide us with information on this. Also, since the establishment data are frequently cited in discussions concerning small business, it is probably useful to provide an analysis of these data.

Table 3 and appendix Table A1 provide the major set of results for the *County Business Patterns* data. The percentage of total employment that was accounted for by establishments with fewer than 100 employees and by establishments with fewer than 500 employees are the two measures of relative importance; the Gini coefficient provides a third distributional measure, to make sure that there are no important distributional changes above or below the specific size cut-off categories.

These tables appear to indicate that for the overall economy the proportion of employees in establishments with fewer than 100 and 500 employees actually rose between 1962 and 1977; i.e., smaller establishments appear to have become relatively more important. The decline in the Gini coefficient (indicating greater equality in establish-

[5]Also in 1974, the cut-off points of the smaller size categories were changed. This may have caused very small changes in the Gini coefficients.

ment sizes) tells the same story. Some of this change, however, is statistical artifact; the change from county-wide consolidation to individual establishment reporting in 1974 (mentioned above) introduced a spurious increase in the apparent relative importance of small establishments. This fact is seen most clearly in Table A1 in the data for the retailing sector, in which the percentage of employment occurring in establishments with fewer than 100 employees jumped from 69.4% in 1973 to 79.5% in 1974. Virtually all of this change must have come from chain-store operations, such as supermarkets, which reported on a county-wide basis in 1973 and on an individual store basis in 1974. Similar, though less dramatic, changes in reporting apparently occurred in the wholesaling and public utilities sectors and possibly also in the financial sector.

Even if we net out this reporting change, however, there still seems to have been an economy-wide net increase in the relative importance of small establishments. This increase was modest for the fewer-than-100 category and more substantial for the fewer-than-500 category. Individual sectors varied in their patterns, as can be seen in the tables.

The changes for the overall economy were due to a combination of distributional changes within the individual sectors (which are reported in Tables 3 and A1) and the changing relative employment weights across the sectors. Table 4 provides these latter weights for the beginning and end years. The largest changes in weights involved the decline in the relative importance of manufactur-

TABLE 4

Employment Percentages, County Business Patterns Data, 1962 and 1977

	1962	1977
Agricultural services, forests, fisheries	0.3%	0.4%
Mining	1.5	1.3
Construction	5.6	5.5
Manufacturing	37.7	30.2
Transportation, public utilities	6.9	6.2
Wholesale trade	7.4	7.0
Retail trade	18.5	20.6
Finance, insurance, real estate	6.3	7.0
Services	15.2	21.6
Unclassified	0.7	0.1

ing and the rise in the relative importance of services. Since services establishments tend to be much smaller than manufacturing establishments, this change in relative weights increased the relative importance of small establishments in the economy-wide measurements, even though the relative importance of small establishments was declining within the services sector itself.

This point, concerning the importance of the changes in distributions within sectors and the change in relative weights across sectors, is established in Table 5. The left-hand side of Table 5 provides the actual economy-wide results, reproduced from Table A1. In the center of Table 5, the 1962 distributional weights within each sector—e.g., the 1962 percentage of employment in establishments with fewer than 100 employees for each sector—were held constant and only the relative sector employment percentages for each year were allowed to vary; i.e., the following expression was computed:

$$P_t = \frac{\sum_i P_{i,1962} \cdot e_{i,t}}{\sum_i e_{i,t}},$$

where P_t is the economy-wide percentage of (for example) employment that would have occurred in establishments with fewer than 100 employees in year t, $P_{i,1962}$ is the same percentage for an individual sector i in 1962, and $e_{i,t}$ is the employment in sector i in year t. By contrast, in the right-hand side of Table 5 the 1962 sector employment weights were held constant and only the individual sector's distributional weights were allowed to vary from year to year; i.e., the following expression was computed:

$$P_t^* = \frac{\sum_i P_{i,t} \cdot e_{i,1962}}{\sum_i e_{i,1962}}$$

A comparison of the left-hand side of Table 5 with the center shows that the changes in employment weights above tended to increase the relative importance of small establishments; the right-hand side of Table 5 indicates that the changes within the individual sectors alone meant a decline in the economy-wide relative importance of small establishments, which was only offset by the 1973/74 change in reporting.

In sum, the *County Business Patterns* data do not show an overall pattern of a net disappearance of small *establishments*. Within some sectors there has been a modest decline in the relative importance of small establishments, but this has been more than offset by the shift in the economy toward sectors with smaller establishments.

As we will argue below, however, this pattern probably overstates the relative strength of small *business* when company data is examined.

C. Employment and Sales by Firm—Enterprise Statistics

As part of the periodic economic censuses, the Bureau of the Census has compiled data on a *company* basis for a number of sectors in its publication *Enterprise Statistics*. Data for employment by firm are currently available for the years 1958, 1963, 1967, and 1972; data for sales by firm are currently available for only 1967 and 1972.[6] Since the unit of observation is the company or firm, these data are better suited to the purposes of our investigation.

One aspect of the *Enterprise Statistics* data (and the other data series discussed below) should be mentioned at the outset. Franchising is a popular method of distributing goods and services. In such cases, large companies decline to open branch or subsidiary operations but instead sell or establish franchises; the franchisees are frequently small, independently operated businesses. The franchisers clearly exercise a considerable amount of influence over the franchisees. But, because the latter are considered to be independent companies for census and tax purposes, they are included as independent companies in the data that are described in the following pages. Thus, if one thought that the franchisor-franchisee relationship meant a decrease in the economic importance of the franchisee (as compared to a wholly independent small business), the data reported below overstate the relative importance of small business.

The employment data in the *Enterprise Statistics* have one special quirk: owner-entrepreneurs (and groups of partners) are not counted as employees; thus, the smallest size class of firms is that with "no employees." This quirk yields a problem: should owner-entrepreneurs be excluded and, if so, what should be done about the smallest size class of firm? Or should they be included, and, if so, how? This problem has been handled in two alternative ways. One way is to ignore the smallest size class entirely and to perform all calculations on the remaining categories "with employees." The second way is to count all owner-entrepreneurs (and partners) as employees; this was done in a rough-and-ready way by assuming that each company in every employment size category had a single owner-entrepreneur who had not been counted as an employee and then simply adding the number of companies to the number of employees to achieve a new

[6]After the analyses for this monograph were completed, the 1977 data were released.

TABLE 3

Establishment Data, from County Business Patterns

Year	All Industries	Agri-cultural, Forestry Services, Fisheries	Mining	Construction	Manu-facturing	Trans-portation, Public Utilities	Whole-sale Trade	Retail Trade	Finance, Insur-ance, Real Estate	Services	Uncl...sified
					% of Establishments with Fewer than 100 Employees						
1962	51.3%	93.2%	50.4%	78.0%	26.0%	38.1%	77.1%	74.8%	58.0%	63.6%	99.1%
1970	49.5	90.3	46.7	73.0	23.9	35.9	75.8	70.7	54.3	48.7	100.0
1977	54.5	84.2	39.7	74.4	25.5	44.0	79.6	81.1	61.3	57.5	100.0
					% of Establishments with Fewer than 500 Employees						
1962	73.6%	100.0%	78.4%	95.0%	56.2%	61.3%	94.7%	87.6%	77.9%	83.2%	100.0%
1970	73.1	99.3	77.3	93.9	55.8	58.3	92.4	86.4	75.9	80.0	100.0
1977	77.5	97.6	74.8	88.6	58.3	72.0	95.8	95.2	80.7	79.1	100.0
					Gini Coefficients						
1962	0.777	0.556	0.758	0.667	0.809	0.824	0.651	0.652	0.759	0.716	0.479
1970	0.777	0.577	0.763	0.685	0.799	0.821	0.642	0.672	0.774	0.742	0.486
1977	0.760	0.607	0.786	0.688	0.802	0.790	0.626	0.638	0.741	0.745	0.614

Source: U.S. Department of Commerce, Bureau of the Census, *County Business Patterns*, various years.

TABLE 5

Economy-wide Results, Showing the Effects of Changing Employment and Distributional Weights, County Business Patterns

	Actual Results			Results with 1962 Distribution Weights Held Constant			Results with 1962 Employment Weights Held Constant		
Year	100[a]	500[b]	Gini[c]	100[a]	500[b]	Gini[c]	100[a]	500[b]	Gini[c]
1962	51.3%	73.6%	0.777	51.3%	73.6%	0.777	51.3%	73.6%	0.777
1964	51.8	74.3	0.774	51.6	73.8	0.775	51.6	74.1	0.776
1965	51.5	74.1	0.776	51.7	73.9	0.774	51.1	73.8	0.778
1966	50.4	73.1	0.779	51.7	73.9	0.774	50.0	72.8	0.781
1967	49.4	72.4	0.783	51.7	73.9	0.774	49.0	72.2	0.785
1968	49.5	72.6	0.778	52.0	74.1	0.771	48.9	72.2	0.782
1969	49.4	72.5	0.778	52.2	74.2	0.771	48.6	72.0	0.783
1970	49.5	73.1	0.777	52.7	74.5	0.767	48.2	72.3	0.785
1971	50.4	73.9	0.777	53.4	75.0	0.763	48.5	75.0	0.784
1972	50.6	74.4	0.769	53.7	74.2	0.762	48.4	73.0	0.782
1973	50.1	74.5	0.770	53.7	75.2	0.762	48.0	73.1	0.783
1974	52.5	75.7	0.769	53.8	75.3	0.763	50.1	74.2	0.780
1975	53.9	76.6	0.763	54.4	75.7	0.759	51.0	74.8	0.776
1976	54.1	77.2	0.762	54.3	75.7	0.758	51.4	75.4	0.776
1977	54.5	77.5	0.760	54.3	75.7	0.758	51.8	75.7	0.775

[a]% of establishments with fewer than 100 employees.

[b]% of establishments with fewer than 500 employees.

[c]Gini coefficients.

employees-including-owners total. As will be seen, the time trends are the same for both methods.

Again, we have chosen 100 and 500 employees as the size cut-off categories and used the Gini coefficient to measure overall distributional trends.[7] But these measures cover *company* data, so we can make direct inferences about small business.

Table 6 and appendix Table A2 provide the employment data from the *Enterprise Statistics*. Care must be used, however, in comparing the accumulated figures for all sectors over the various years, because a few sectors were included or excluded selectively in the four census years covered. Table 7 provides the list of sector inclusions and exclusions and the relative employment weights of the sectors in each year.

TABLE 7

Employment Weights, Enterprise Statistics

	1958	1963	1967	1972
Mineral Industries	1.8%	1.3%	0.9%	1.0%
Construction	—	—	8.2	9.1
Manufacturing	55.8	55.8	51.0	46.1
Miscellaneous Transportation	—	0.3	0.3	—
Public Warehousing	0.3	—	—	—
Wholesale Trade	6.8	7.0	6.3	7.2
Retail Trade	25.9	20.4	23.2	25.2
Selected Services	9.3	9.7	10.1	11.4

Source: See Table 6.

A more consistent measure of the aggregate time trend is gained by focusing only on the sectors which are included in all four census years. The left hand side of Table 8 provides these aggregate results. For this consistent set of five sectors, there was a modest decline in the relative importance of small business, regardless of the measurement used.

The remainder of Table 8 shows the consequences of the changing weights. The middle three columns show the consequences of fixing the distributional patterns within each sector at their 1958 levels and allowing only the relative employment weights among sectors to change from year to year. These changing employment weights clearly made a large difference in the relative importance of

[7]The size classes were different in each of the four years. Because the calculation of the Gini coefficient is sensitive to these differences, the size classes in the later years were consolidated so as to be consistent with the 1958 categories.

small business. The last three columns show the consequences of keeping relative employment weights among sectors fixed at their 1958 levels and allowing only the distributional weights within each sector to vary. Again, the decrease in the relative importance of small business within each sector was substantial.

Table 9 presents the data on company sales, which are available for 1967 and 1972 from the *Enterprise Statistics*. We have chosen firms with less than $500,000 and less than $5 million in annual sales as the cut-off size categories, with the Gini coefficient offering a measure of the complete distribution. The data appear to indicate a decrease in the relative importance of small firms, regardless of the measure used. There was, however, a substantial increase in prices between these two years: the Consumer Price Index rose by 25.3%, the Wholesale Price Index rose by 19.1%, and the GNP deflator rose by 26.6%. Even if nothing else had changed, we would expect price changes of these magnitudes to cause a decrease in the relative importance of small firms when measured against an unchanged dollar sales standard.[8]

It is possible to obtain a crude estimate of how much of the shifts in Table 9 were due to price increases. Suppose that the overall distribution of firms is log-normally distributed with respect to sales. Following Prais (1976, pp. 191-199), we can use the $500,000 and $5 million sales data to estimate the log variance of the sales distribution for 1967.[9] Next, let us use 20% as a conservative estimate of the price increase between 1967 and 1972 and let us further assume that the price increase affected the sales of all firms equally; i.e., inflation meant a simple scaling up of all values by 20%. We can now calculate the percentage of sales that would be *expected* to occur in firms with less than $500,000 and less than $5 million in sales.[10] This calculation yields 15.6% and 40.5%, respectively, which are above the 15.0% and 38.2% figures actually realized. Thus, the sales data, with the correction for inflation, show a modest decrease in the relative importance of small business.

Overall, then, the *Enterprise Statistics* show a modest drop in the relative importance of small business between 1958 and

[8]This would be true also for the calculation of the Gini coefficient, unless the size class cut-off points were increased proportionally.

[9]The implied log standard deviation is 3.198. The Prais method uses the two cumulative percentages at the two cut-off points as estimates of the sizes of cumulative tails of the log-normal distribution at these points. These two estimates can then be used to solve for the log mean and log standard deviation which would yield those cumulative tails at those cut-off points. See Prais (1976, pp. 191-199)

[10]Using 3.198 as the log standard deviation and the fact that 49.0% of sales were in firms below $10 million in sales, we get an estimate that 50% of all sales were in firms below $10.7 million in sales in 1967. This last figure is then increased by 20%, and then the variance is used to calculate the percentages at the $500,000 and $5 million cut-off points, according to the expectations of the log-normal distribution.

1972; the data in Table 8, for a consistent set of sectors in the economy, most clearly indicate this result.

D. Sales by Firms—Statistics of Income Data

The Internal Revenue Service annually publishes data for all firms—sole proprietorships, partnerships, and corporations—arrayed by sales size classes in its *Statistics of Income* publications. The data are based on income tax returns and hence should be comprehensive. The data are currently available and usable for 1958-1961 and 1964-1975. Again, $500,000 and $5 million have been chosen as the size cut-off points, and the Gini coefficient has also been provided.[11]

The basic results are presented in Table 10 and appendix Table A3. The relative importance of firms below $500,000 and $5 million declined overall and in each category, while the Gini coefficients rose. Table 11 shows the sales weights at the beginning and the end of these years, and Table 12 shows the effects of the changing sales weights across sectors and the changing distributional weights within sectors.

Again, as was the case for the sales figures in the *Enterprise Statistics*, it is necessary to try to correct these figures for the substantial inflation that occurred between 1958 and 1975. Between these two years, the CPI rose by 86.1%, the WPI rose by 84.9%, and the GNP deflator rose by 92.6%.

There are two ways in which one might try to adjust for these price increases. First, as a rough approximation, let these price increases represent a doubling of the price level. Then, if either $500,000 or $5 million had been considered the approximate cut-off points for a "small business" in 1958, the appropriate points in 1975 would have been $1 million or $10 million. Firms below these latter points in 1975 accounted for only 18.1% and 36.3% of all sales; these percentages are well below the 28.8% and 51.5% for the lower cut-off points in 1958. (See Table 13). Thus, even after this rough correction for inflation, it appears that small business still declined substantially in relative importance.

Second, one could again assume a log-normal distribution for the size of firms, as was done in the previous section. If one uses 85% as the increase in prices between 1958 and 1975, the results of the

[11]Because the *Statistics of Income* size classes are not the same for each year or even the same across the categories of sole proprietorships, partnerships, and corporations in the same year, it was necessary to standardize the data to twelve size classes. In some cases, estimates of the numbers of firms and of sales in the smallest or largest size classes had to be made. This was done by assuming that firms were log-normally distributed, using the Prais (1976, pp. 191-199) method to estimate the log variance, and then "smearing" the data from adjacent size classes into the empty size classes according to the expectations of the log-normal distribution.

TABLE 6

Company Data, from Enterprise Statistics, Employment[a]

Year	All Industries	Mineral	Construction	Manu-facturing	Trans-portation	Public Warehousing	Whole-sale Trade	Retail Trade	Selected Services
				% of Employment in Companies with Fewer than 100 Employees					
1958	41.3%	44.2%	—	20.6%	—	67.7%	78.6%	65.4%	69.5%
1972	41.3	34.1	69.6	16.2	—	—	76.9	56.9	63.5
				% of Employment in Companies with Fewer than 500 Employees					
1958	55.1%	61.1%	--	37.1%	—	86.1%	94.1%	72.5%	84.0%
1972	53.5	48.6	85.7	28.9	—	—	91.7	64.4	79.3
				Gini Coefficient					
1958	0.726	0.719	—	0.853	—	0.571	0.478	0.503	0.509
1972	0.731	0.789	0.541	0.883	—	—	0.484	0.606	0.566

[a]Data excludes size category "no employees"; for estimates that include this category, see appendix Table A2.
Source: U.S. Department of Commerce, Bureau of the Census, *Enterprise Statistics*, various years.

TABLE 8

The Aggregate Effects of Changing Weights, Employment Data from Enterprise Statistics[a]

	Actual results			Results Holding Constant 1958 Distribution Weights within Sectors			Results Holding Constant 1958 Employment Weights Across Sectors		
	100[b]	500[c]	Gini[d]	100[b]	500[c]	Gini[d]	100[b]	500[c]	Gini[d]
				Excluding the Size Category "No Employees"					
1958	41.2%	55.0%	0.726	41.2%	55.0%	0.726	41.2%	55.0%	0.726
1963	39.8	52.8	.737	41.4	55.2	.726	39.7	52.6	.738
1967	37.2	50.0	.756	41.6	55.4	.724	36.9	49.6	.759
1972	38.4	50.2	.750	44.0	57.6	.703	35.7	47.5	.770
				Including the Size Category "No Employees"[e]					
1958	46.7	59.3	.757	46.7	59.3	.757	46.4	59.3	.757
1963	45.2	57.0	.763	46.8	59.4	.757	45.1	57.0	.763
1967	42.5	54.3	.792	47.0	59.6	.761	42.2	54.0	.788
1972	43.9	54.7	.795	49.6	61.9	.744	41.0	51.9	.806

[a]Combined data for mineral, manufacturing, wholesale, retail, and services sector only.
[b]% of employment in companies with fewer than 100 employees.
[c]% of employment in companies with fewer than 500 employees.
[d]Gini coefficient.
[e]See text for method of inclusion.
Source: See Table 6.

TABLE 9

Company Data, from Enterprise Statistics—Sales

Year	All Industries	Minerals	Construction	Manu-facturing	Trans-portation	Public Warehousing	Whole-sale Trade	Retail Trade	Selected Services
				% of Sales in Companies with Less than $500,000 in Sales					
1967	16.5%	14.1%	34.1%	4.1%	10.2%	—	36.9%	54.0%	46.8%
1972	13.8	6.9	28.4	3.2	--	—	8.2	30.0	47.5
				% of Sales in Companies with Less than $5,000,000 in Sales					
1967	39.8%	38.3%	71.1%	17.4%	53.0%	—	62.8%	75.6%	75.7%
1972	35.9	22.4	64.7	13.8	—	—	48.7	55.1	71.9
				Gini Coefficient for Sales					
1967	0.906	0.886	0.856	0.931	0.737	—	0.802	0.797	0.716
1972	.914	.923	.861	.937	—	—	.752	.832	.825

Source: U.S. Department of Commerce, Bureau of the Census, *Enterprise Statistics*, various years

TABLE 10

Company Data, from IRS, Statistics of Income

Year	All Companies	Agriculture	Mining	Construction	Manu-facturing	Trans-portation	Whole-sale and Retail Trade	Finance, In-surance, Real Estate	Services
				% of Sales in Companies with Less than $500,000 in Sales					
1958	28.8%	91.1%	18.8%	44.7%	7.2%	12.3%	37.7%	27.8%	73.7%
1968	20.9	80.4	14.6	34.7	4.2	10.2	27.3	18.7	64.0
1975	13.6	60.4	4.9	27.4	2.2	6.5	16.2	10.3	52.6
				% of Sales in Companies with Less than $5,000,000 in Sales					
1958	51.5%	97.0%	44.3%	80.7%	26.1%	22.5%	67.9%	43.4%	88.4%
1968	42.4	94.9	36.1	75.3	17.5	20.0	59.0	34.2	85.2
1975	30.7	85.8	14.8	63.5	10.7	14.6	43.8	21.5	75.5
				Gini Coefficients					
1958	0.454	0.316	0.464	0.426	0.430	0.480	0.408	0.458	0.383
1978	0.463	0.369	0.472	0.429	0.471	0.479	0.422	0.469	0.403
1975	0.472	0.390	0.485	0.436	0.482	0.485	0.445	0.478	0.417

Source: U.S.Internal Revenue Service, *Statistics of Income*, various years.

TABLE 11

Sales Weights, Statistics of Income Data, 1958 and 1975

	1958[a]	1975[a]
Agriculture	3.5%	2.9%
Mining	1.2	2.0
Construction	5.1	5.1
Manufacturing	35.1	37.0
Transportation and public utilities	6.2	6.6
Wholesaling	14.8	31.2
Retailing	20.1	
Finance, insurance, real estate	7.3	9.7
Services	4.9	4.7

[a]Percentages do not sum to 100.0 because of unclassified categories. Source: See Table 10.

calculation[12] yield expected sales percentages of 23.9% and 45.2% at the $500,000 and $5 million cut-off points in 1975; these are well above the actual levels of 13.6% and 30.7%. (See Table 13). Again, even after this correction for inflation, it appears that small business declined in relative importance.

The sales data from the *Statistics of Income*, then, indicate a substantial decrease in the relative importance of small business, even after we account for the effects of inflation.

E. Gross Product Originating in Small Business—Data Compiled by Joel Popkin and Company

Using a combination of data from *Enterprise Statistics* and *Statistics of Income*, Joel Popkin and Company (1980) has estimated the "gross product originating (GPO)" in small business for the years 1955-1976. Popkin defines small business as firms with 500 or fewer employees. GPO consists of employee compensation, gross profits, net interest, indirect business taxes, and capital consumption allowances; it thus comes close to the standard definition of value added. (GPO excludes rents paid to others, which is usually included in value added).

Popkin's basic method is to use the *Statistics of Income* data for the four available census years to calculate the payroll and average sales size of small businesses. He then applies the average

[12]The log standard deviation is 3.90.

TABLE 13

Sales Data From Statistics of Income: Actual Results and Correction for Inflation

	Actual Results		Corrections for Inflation			
			Double the size of the 1975 cut-off points		Use Prais Method to Predict Tails of Log-Normal Distribution	
	$500,000	$5 million	$1 million	$10 million	$500,000	$5 million
1958	28.8%	51.5%	—	—	—	—
1975	13.6	30.7	18.1	36.3	23.9	45.2

sales size figures to the *Statistics of Income* data, from which he estimates the remaining four components of GPO for small businesses. He then extrapolates these results to the non-census years in the 1955-1976 period.

Since Popkins's estimates are grounded most solidly in the census years. we have reproduced those years' data in Table 14. As can be seen, there was a modest decline in the aggregate GPO originating in these sectors, with more substantial declines occurring within the mining, manufacturing, and retail sectors. Again, the changing weights across sectors moderated the aggregate decline. Table 15 shows these weights. And Table 16 shows the effects of the changing GPO weights across sectors and the changing distribution weights within sectors.

Thus, the GPO data, which most closely approximate the value added data that would be the ideal measure of relative economic importance, show a modest overall decline in the relative importance of small business.

F. A Comparison of The Data Sets

We have examined in detail four sets of data. Since the first set pertains only to establishments, whereas our major interest is in companies, we shall largely focus on the latter three data sets. All three—the labor and sales data from *Enterprise Statistics*, the sales data from *Statistics of Income*, and the GPO data from Popkin—show a pattern of a decline in the relative importance of small business in the American economy. These economy-wide declines are less severe than the declines within individual sectors (such as mining, manufacturing,

TABLE 15

GPO Weights, Popkin Data, 1958 and 1972

	1958	1972
Mining	3.3%	2.0%
Contract construction	5.6	6.0
Manufacturing	33.3	29.9
Transportation, communications, public utilities	10.9	10.7
Wholesale trade	8.2	8.8
Retail trade	12.0	12.0
Finance, insurance, real estate	16.3	17.3
Services	10.4	13.4

Source: See Table 14

and retailing) because of the shifting composition of the American economy toward those sectors in which small business is more widespread.

The three data sets, though, do show somewhat different overall patterns. The employment data from *Enterprise Statistics* and the GPO data from Popkin show only modest economy-wide declines in the relative importance of small business, whereas the sales data from *Statistics of Income* show a much more substantial decline in the relative position of small business, even after rough corrections for the effects of inflation.

The proximate cause of this disparity in patterns is the differing patterns of the changes in weights among the sectors over the years. Recall that an important part of the economy-wide strength of small business in the employment and GPO data was the shift in weights from manufacturing (large firms) to other sectors (smaller firms). A comparison of the relative sector weights for the sales data in Table 11 with the weights for the employment data in Tables 4 and 7 and the GPO data in Table 15 reveals a striking difference. In the sales data the relative weight of the manufacturing sector *increases* over time and the relative weights of the trade and service sectors *decrease*; in the employment and GPO data the opposite is true.[13]

We next have to ask, how can the rising weight of manufacturing in the sales data be reconciled with its falling weights in the employment and GPO data? The sales and GPO trends can be

[13]The GPO numbers are supported by the GNP value added numbers. In 1960, value added in manufacturing accounted for 31.8% of GNP; in 1978 the percentage was 27.6%.

TABLE 16

The Aggregate Effects of Changing Weights:
The Percentage of Gross Product Originating in Firms
With 500 or Fewer Employees, Popkin Data

	Actual Results	Results Holding Constant 1958 Distribution Weights Within Sectors	Results Holding Constant 1958 GPO Weights Across Sectors
1958	51%	51%	51%
1963	52	51	52
1967	50	51	49
1972	49	53	46

Source: See Table 14.

reconciled by recognizing that a relatively shrinking proportion of GPO in manufacturing could support a relatively growing proportion of manufacturing sales, through manufacturing firms becoming more vertically specialized and/or the trade and services sectors integrating backward to a greater extent; i.e., manufacturing was becoming *relatively* less vertically integrated.[14]

The sales and employment trends can be reconciled through the relative decline in vertical integration in manufacturing just discussed and also through a relatively rising capital-labor ratio in manufacturing (so that, even for the same degree of vertical integration, a falling proportion of labor could support a rising proportion of sales). A limited amount of data indicates that this latter effect was occurring also. Table 17 presents data on the ratio of assets in 1958 and 1975, derived from the *Statistics of Income*. The usual caveats are necessary in dealing with accounting measures of capital in the inflation-prone 1970s.[15] Nevertheless, it is striking that the capital-sales ratio for manufacturing rose slightly, while that of every other sector except construction declined; recall that this was occurring while the relative vertical integration of manufacturing was falling. Further, the Popkin data show that for manufacturing the ratio of returns to capital as compared to labor compensation was rising between 1958 and 1972 whereas this ratio fell for most other sectors. Table 18 provides these figures.

[14]For the available data on vertical integration in manufacturing, see Tucker and Wilder (1977). Note that their results indicate only the absolute trends for manufacturing, not the trends *relative* to other sectors.

[15]Most importantly, historical book values of assets understate current opportunity costs.

TABLE 17

Ratio of Assets (Book Value) to
Sales for Corporations, Statistics of Income

	1958	1975
Agriculture, forestry, fishing	1.00	0.75
Mining	1.51	0.98
Construction	0.47	0.52
Manufacturing	0.72	0.73
Transportation, public utilities	2.31	1.82
Wholesale and retail trade	0.35	0.33
Finance	9.65	7.35
Services	0.87	0.69
All sectors	1.46	1.34

Source: U.S. Internal Revenue Service, *Statistics of Income*, 1958 and 1975.

TABLE 18

Ratio of Gross Capital Returns[a] to Labor
Compensation, Popkin Data, 1958 and 1972

	1958	1972
Mining	1.74	1.23
Contract construction	0.39	0.30
Manufacturing	0.31	0.32
Transportation, communications, public utilities	0.59	0.63
Wholesale trade	0.45	0.43
Retail trade	0.54	0.35
Finance, insurance, real estate	3.41	2.60
Services	0.67	0.43
All Sectors	0.63	0.55

[a]Gross profits plus net interest plus capital consumption
Source: See Table 14

Thus, it appears likely that manufacturing has experienced a rise in capital-labor ratios *relative to other sectors* and also a decrease in vertical integration *relative to other sectors* (either greater vertical specialization among manufacturing firms or more backward integration by the trade and services sectors). And a rising weight for manufacturing in the sales data—which would accentuate the apparent decline of small business—can thereby be reconciled with a declining weight in the employment and GPO data.

It follows, then, that if value added were thought to be the best measure of the relative importance of firms, the sales data surely overstate the decline in the relative importance of small firms. The employment data and especially the GPO data seem closer to the mark.

Thus, it is very likely the case that, despite their increase in absolute numbers, small businesses have experienced a modest decrease in relative importance in the past two decades. But because of the changing weights of the various sectors in the economy, the economy-wide decrease is far less than that which would be perceived by looking at only an individual sector (e.g., manufacturing). Judgments about the overall role of small business in the U.S. economy must include the effects of this important underlying trend in the structure of the economy.

IV. Conclusions from This Study

Small business continues to occupy a prominent place in the hearts and minds of many Americans. The tradition of Jeffersonian democracy, of yeomen farmers, independent artisans and craftsmen, and small shopkeepers is one that endures. The existence of a major federal agency (SBA) and separate committees in the Senate and the House of Representatives with specific responsibilities for the care and well being of small business are testaments to our national concern.

The results of this study indicate that small business is still alive and well in the American economy. On an economy-wide basis, the relative importance of small business has declined modestly over the past two decades, but this decline is not nearly as severe as one might believe to be the case from looking at only one or a few individual sectors (e.g., manufacturing). The transition of the economy away from manufacturing and heavy industry and toward services of all kinds is one that has favored small business.

Even the modest overall decline is not too surprising. These decades have been a period in which capital-labor ratios have grown substantially, in which transportation and communications costs have continued to decrease relative to other costs so that more markets have become national or even international in scope, and in which the growth of the overall economy has slowed considerably. In a related study (White, 1982a) this author has shown empirically that small business tends to flourish under conditions exactly opposite to those which have occurred. Thus, one would have expected small business to have done relatively poorly. Indeed, it is probably an indication of the continuing strength and adaptability of entrepreneurship in the American economy that small business did not experience a more serious decline during these decades.

This decline in the relative share of economic activity accruing to small business need not mean that the "giants of industry" have been the beneficiaries. As this author has demonstrated elsewhere (White, 1982b), the largest companies in the U.S. economy have also been experiencing a decline in their share of aggregate economic activity. These pieces of evidence, then, imply that medium size business have been the relative gainers.

The prospect for small business in the coming decades is probably "more of the same." The economy is likely to continue to

move toward an emphasis on services, which will favor small business. But capital-labor ratios will surely continue to rise, transportation and especially telecommunications costs will continue to fall in real terms, and slow national economic growth may well persist. As a consequence, the aggregate numbers of small businesses are likely to continue to rise, while their shares of national economic aggregates will continue to show a moderate decline. Proponents of small business may well decry these outcomes. But, under the circumstances—a world in which markets are becoming increasingly national and even international in scope and in which aggregate economic growth is likely to be slow—this outcome is probably the best that can be expected.

TABLE 12

The Aggregate Effects of Changing Weights,
Sales Data from Statistics of Income

	Actual Results			Results Holding Constant 1958 Distribution Weights Within Sectors			Results Holding Constant 1958 Sales Weights Across Sectors		
	$500,000[a]	$5 million[b]	Gini[c]	$500,000[a]	$5 million[b]	Gini[c]	$500,000[a]	$5 million[b]	Gini[c]
1958	28.8%	51.5%	0.454	28.8%	51.5%	0.454	28.8%	51.5%	0.454
1959	27.7	49.8	.456	27.6	49.6	.457	26.6	48.0	.458
1960	27.0	50.2	.456	27.7	49.8	.456	26.4	48.9	.458
1961	26.9	50.0	.457	28.1	50.2	.455	26.1	48.6	.459
1964	26.1	49.7	.457	28.1	50.2	.455	25.3	48.5	.459
1965	23.4	d	.459	27.9	50.2	.455	23.0	d	.461
1966	22.4	d	.460	28.1	50.0	.455	22.2	d	.461
1967	22.3	d	.460	27.9	50.0	.455	21.8	d	.462
1968	20.9	42.4	.463	28.2	49.8	.455	20.7	42.2	.464
1969	20.2	41.9	.463	28.5	50.2	.454	19.9	41.6	.465
1970	20.0	41.2	.464	28.5	50.4	.453	19.4	40.6	.466
1971	19.5	40.6	.464	28.4	50.6	.454	18.9	39.7	.466
1972	17.9	38.2	.466	28.3	50.3	.453	17.4	37.7	.469
1973	16.7	36.3	.468	28.0	50.1	.454	16.3	35.9	.470
1974	14.7	32.4	.471	27.3	49.2	.456	14.5	33.0	.471
1975	13.6	30.7	.472	27.0	49.0	.457	14.1	31.6	.472

[a]% of sales in companies with less than $500,000 in sales.
[b]% of sales in companies with less than $5 million in sales.
[c]Gini coefficient.
[d]Data are unsuitable for necessary calculation.
Source: See Table 10.

TABLE 14

The Percentage of Gross Product Originating (GPO) in Firms with 500 or Fewer Employees

Year	All Sectors	Mining	Contract Construction	Man-facturing	Communi-cations, Public Utilities	Whole-sale Trade	Retail Trade	Finance, In-surance, Real Estate	Services
1958	51%	52%	88%	28%	19%	89%	75%	49%	86%
1963	52	45	86	26	26	89	73	57	84
1967	50	40	84	23	23	89	70	52	84
1972	49	32	84	21	20	85	65	48	83

Source: Joel Popkin and Co., "Measuring Gross Product Originating in Small Business: Methodology and Annual Estimate, 1955 to 1976," submitted to the U.S. Small Business Administration, September 1980.

Appendix

TABLE A1

Establishment Data from County Business Patterns

Year	All Industries	Agri-cultural, Forestry Services, Fisheries	Mining	Construction	Manu-facturing	Trans-portation, Public Utilities	Whole-sale Trade	Retail Trade	Finance, Insur-ance, Real Estate	Services	Unclassified
					% of Employment in Establishments with Fewer than 100 Employees						
1962	51.3%	93.2%	50.4%	78.0%	26.0%	38.1%	77.1%	74.8%	58.0%	63.6%	99.1%
1964	51.8	90.9	55.5	78.7	25.8	38.8	80.5	74.8	58.7	63.2	98.7
1965	51.5	91.3	54.0	77.1	25.4	38.3	80.0	74.2	58.5	63.0	99.4
1966	50.4	92.3	52.1	75.2	24.2	37.9	78.5	73.2	57.9	61.5	99.8
1967	49.4	89.6	50.1	73.5	23.6	37.0	77.4	72.2	57.4	59.8	99.9
1968	49.5	89.8	50.4	74.9	23.6	36.6	77.8	71.9	56.3	59.4	100.0
1969	49.4	90.6	48.5	74.8	23.3	36.7	77.0	71.4	55.9	59.4	100.0
1970	49.5	90.3	46.7	73.0	23.9	35.9	75.8	70.7	54.3	58.7	100.0
1971	50.4	90.5	46.0	73.9	24.8	35.9	75.6	70.5	53.9	58.6	100.0
1972	50.6	90.1	44.9	75.0	24.6	36.1	75.5	70.2	54.1	58.6	100.0
1973	50.1	89.8	44.0	75.8	24.1	36.4	74.7	69.4	54.0	57.9	100.0
1974	52.5	86.0	41.6	71.3	24.4	38.0	78.4	79.5	56.3	57.7	99.0

TABLE A1

Establishment Data from County Business Patterns (Continued)

Year	All Industries	Agri-cultural, Forestry Services, Fisheries	Mining	Construction	Manu-facturing	Trans-portation, Public Utilities	Whole-sale Trade	Retail Trade	Finance, Insur-ance, Real Estate	Services	Unclassified
1975	53.9	86.8	41.1	71.5	25.7	38.9	79.1	80.5	58.2	57.6	100.0
1976	54.1	85.0	40.4	72.6	25.4	42.4	79.7	80.4	60.5	57.5	96.0
1977	54.5	84.2	39.7	74.4	25.5	44.0	79.6	81.1	61.3	57.5	100.0
					% of Employment in Establishments with Fewer than 500 Employees						
1962	73.6%	100.0%	78.4%	95.0%	56.2%	61.3%	94.7%	87.6%	77.9%	83.2%	100.0%
1964	74.3	99.3	82.9	96.1	56.5	61.7	96.6	87.9	79.1	82.9	100.0
1965	74.1	99.6	81.2	95.5	56.3	60.6	96.1	87.6	79.2	82.9	100.0
1966	73.1	99.6	80.1	94.4	54.7	60.6	95.6	97.1	78.9	82.0	100.0
1967	72.4	99.3	78.6	94.0	54.0	59.8	95.2	86.8	78.3	81.0	100.0
1968	72.6	99.7	80.4	94.7	54.3	59.5	95.2	86.8	77.6	80.6	100.0
1969	72.5	99.2	78.3	94.8	54.2	58.9	94.7	86.4	77.0	80.6	100.0

TABLE A1

Establishment Data from County Business Patterns (Continued)

Year	All Industries	Agri-cultural, Forestry Services, Fisheries	Mining	Construction	Manu-facturing	Trans-portation, Public Utilities	Whole-sale Trade	Retail Trade	Finance, Insur-ance, Real Estate	Services	Unclassified
1970	73.1	99.3	77.3	93.9	55.8	58.3	92.4	86.4	75.9	80.0	100.0
1971	73.9	100.0	75.3	94.0	57.3	58.3	94.0	86.1	75.8	79.8	100.0
1972	74.4	99.7	75.1	93.8	58.0	58.3	94.0	86.0	76.5	80.0	100.0
1973	74.5	99.5	75.2	94.4	57.6	59.3	94.5	86.1	77.0	80.1	100.0
1974[a]	75.7	96.1	78.0	90.0	57.2	63.9	94.9	93.7	74.7	79.2	100.0
1975	76.6	96.2	76.9	88.4	58.2	64.8	95.2	94.4	76.8	78.8	100.0
1976	77.2	97.7	75.6	87.8	58.3	69.8	95.8	94.6	79.3	79.1	100.0
1977	77.5	97.6	74.8	88.6	58.3	72.0	95.8	95.2	80.7	79.1	100.0
					Gini Coefficients						
1962	0.777	0.556	0.758	0.667	0.809	0.824	0.651	0.652	0.759	0.716	0.479
1964	.774	.574	.741	.668	.808	.820	.631	.655	.756	.718	.480

[a]Change in reporting procedures; see text.

TABLE A1

Establishment Data from County Business Patterns (Continued)

Year	All Industries	Agri-cultural, Forestry Services, Fisheries	Mining	Construction	Manu-facturing	Trans-portation, Public Utilities	Whole-sale Trade	Retail Trade	Finance, Insur-ance, Real Estate	Services	Unclassified
1965	.776	.574	.745	.676	.807	.822	.634	.659	.757	.721	.475
1966	.779	.580	.750	.681	.809	.820	.640	.665	.759	.729	.484
1967	.783	.591	.757	.690	.809	.822	.644	.670	.761	.738	.490
1968	.778	.583	.748	.675	.806	.820	.637	.666	.764	.738	.492
1969	.778	.575	.758	.676	.804	.820	.640	.668	.766	.738	.495
1970	.777	.577	.763	.685	.799	.821	.642	.672	.774	.742	.499
1971	.733	.575	.767	.679	.796	.821	.644	.672	.777	.742	.486
1972	.769	.575	.766	.669	.791	.818	.642	.672	.775	.741	.496
1973	.770	.572	.771	.663	.792	.817	.644	.676	.775	.742	.497
1974[a]	.769	.599	.785	.698	.798	.812	.638	.646	.759	.744	.565
1975	.763	.589	.777	.699	.800	.809	.628	.638	.750	.745	.520
1976	.762	.593	.779	.690	.800	.795	.626	.641	.743	.746	.657
1977	.760	.607	.786	.688	.802	.790	.626	.638	.741	.745	.614

Source: U.S. Department of Commerce, Bureau of the Census, *County Business Patterns*, various years.

TABLE A2

Company Data from Enterprise Statistics

Year	All Industries	Mineral	Construction	Manu-facturing	Trans-portation	Public Warehousing	Whole-sale Trade	Retail Trade	Selected Services
		% of Employment in Companies with Fewer than 100 Employees—Excluding Owner							
1958	41.3%	44.2%	—	20.6%	—	67.7%	78.6%	65.4%	69.5%
1963	39.9	51.0	—	19.1	73.6	—	79.4	62.9	67.3
1967	39.9	45.0	68.8	16.3	75.8	—	75.8	60.2	65.4
1972	41.3	34.1	69.6	16.2	—	—	76.9	56.9	63.5
		% of Employment in Companies with Fewer than 100 Employees—Including Owner							
1958	46.8%	46.9%	—	21.7%	—	69.8%	80.5%	71.5%	77.2%
1963	45.3	54.1	—	20.2	75.4	—	81.2	68.9	75.3
1967	45.6	47.7	74.6	17.2	77.7	—	77.7	66.0	73.9
1972	47.0	36.6	74.9	17.2	—	—	78.9	62.8	72.3
		% of Employment in Companies with Fewer than 500 Employees—Excluding Owner							
1958	55.1%	61.1%	—	37.1%	—	86.1%	94.1%	72.5%	84.0%
1963	52.9	68.1	—	34.5	90.7	—	93.7	69.4	81.7
1967	53.2	61.5	86.5	30.4	92.0	—	92.0	67.8	81.0
1972	53.5	48.6	85.7	28.9	—	—	91.7	64.4	79.3

TABLE A2

Company Data, from Enterprise Statistics (Continued)

Year	All Industries	Mineral	Construction	Manu-facturing	Trans-portation	Public Warehousing	Whole-sale Trade	Retail Trade	Selected Services
				% of Employment in Companies with Fewer than 500 Employees—Including Owner					
1958	59.4%	63.0%	—	38.1%	—	87.1%	94.7%	77.4%	88.1%
1963	57.1	70.1	—	35.5	91.4	—	94.3	74.4	86.2
1967	57.6	63.4	89.0	31.3	92.7	—	92.6	72.6	85.7
1972	58.1	50.6	88.2	29.8	—	—	92.4	69.3	84.3
				Gini Coefficient for Employment—Excluding Owner					
1958	0.726	0.719	—	0.853	—	0.571	0.478	0.503	0.509
1963	.737	.680	—	.861	.525	—	.468	.532	.525
1967	.738	.724	.542	.883	.494	—	.494	.566	.542
1972	.731	.789	.541	.883	—	—	.484	.606	.566
				Gini Coefficient for Employment—Including Owner					
1958	0.756	0.713	—	0.843	—	0.534	0.468	0.581	0.590
1963	.763	.700	—	.858	.500	—	.444	.586	.606
1967	.780	.710	.656	.878	.465	—	.465	.642	.622
1972	.781	.794	.656	.881	—	—	.505	.686	.642

Source: U.S. Department of Commerce, Bureau of the Census, *Enterprise Statistics*, various years.

TABLE A3

Company Data from IRS Statistics of Income

Year	All Companies	Agriculture	Mining	Construction	Manu-facturing	Trans-portation	Whole-sale Trade	Retail Trade	Whole-sale & Retail Combined	Finance, In-surance, Real Estate	Services
	% of Sales in Companies with Less than $500,000 in Sales										
1958	28.8%	91.1%	18.8%	44.7%	7.2%	12.3%	17.7%	52.3%	37.7%	27.8%	73.7%
1959	27.7	90.1	13.8	44.4	6.7	11.8	16.7	49.9	35.6	26.4	71.8
1960	27.0	86.7	18.4	45.7	7.0	11.7	16.9	48.6	35.1	25.4	70.9
1961	26.9	86.5	17.8	44.6	6.9	11.9	17.0	47.8	34.8	24.6	70.9
1964	26.1	84.6	16.8	43.1	6.6	11.7	16.6	45.8	33.4	25.0	70.1
1965	23.4	83.2	15.5	39.9	5.2	11.4	14.1	41.6	30.3	22.0	66.2
1966	22.4	83.2	15.2	37.1	4.8	10.9	13.9	40.5	29.4	21.0	65.1
1967	22.3	82.3	17.5	36.0	4.7	10.6	13.5	39.4	29.0	19.9	64.9
1968	20.9	80.4	14.6	34.7	4.2	10.2	12.6	37.3	27.3	18.7	64.0
1969	20.2	76.9	15.0	32.4	4.0	9.4	12.2	35.7	26.1	18.6	61.6
1970	20.0	74.4	12.8	30.7	3.8	9.5	11.9	35.8	26.0	17.0	59.4
1971	19.5	74.5	12.5	30.9	3.6	9.0	10.7	33.6	24.3	20.2	59.9
1972	17.9	70.9	11.5	30.9	3.3	8.6	10.1	29.9	21.5	15.9	57.6
1973	16.7	69.4	9.1	30.1	2.8	8.4	8.2	28.6	19.3	14.7	55.4

References

M.A. Adelman, "Concept and Statistical Measurement of Vertical Integration" in G.J. Stigler, ed., *Business Concentration and Price Policy* (Princeton: NBER-Princeton University Press, 1955).

C. Dickens, *A Tale of Two Cities* (Philadelphia: T.B. Peterson & Brothers, 1859).

J.S. Duesenberry, "Small Business in the American Economy," in U.S. Board of Governors (1958), pp. 172-191.

E.D. Hollander and others, *The Future of Small Business* (New York: Praeger, 1967).

J.E. Kwoka, Jr., "Establishment Size, Wages, and Job Satisfaction: The Tradeoffs", in J.J. Siegfried, ed., *The Economics of Firm Size, Market Structure, and Social Performance*, (Washington D.C.: U.S. Federal Trade Commission, July, 1980).

J.W. Markham, "Trends in the Relative Importance of Small Business" in U.S. Board of Governors (1958), pp. 197-217.

J. McNulty, "The Survival of Small Manufacturing Businesses," in U.S. Board of Governors (1958), pp. 218-231.

S.J. Prais, *The Evolution of Giant Firms in Britain* (Cambridge: Cambridge University Press, 1976).

Joel Popkin and Co., "Measuring Gross Product Originating in Small Business: Methodology and Annual Estimates, 1955-1976," submitted to U.S. Small Business Administration (September 1980).

E.J. Stockwell, "What is a 'Small' Business?" in U.S. Board of Governors (1958), pp. 150-171.

I.B. Tucker and R.P. Wilder, "Trends in Vertical Integration in the U.S. Manufacturing Sector," *Journal of Industrial Economics*, 26 (September 1977), pp. 81-94.

U.S. Board of Governors of the Federal Reserve System, *Financing Small Business*. Report to the Committees on Banking and Currency and the Select Committee on Small Business, U.S. Congress (Washington, D.C.: April 11, 1958).

U.S. Department of Commerce, *Statistical Abstract of the United States, 1979* (Washington, D.C.: 1979).

U.S. House of Representatives, Committee on Small Business, *Future of Small Business in America* (Washington, D.C.: August 1979).

U.S. Senate, Select Committee on Small Business, *28th Annual Report, 1978* (Washington, D.C.: 1977).

J.F. Weston, "The Position of Small Business in the American Economy," in I. Pfeffer, *The Financing of Small Business: A Current Assessment* (New York: Macmillan, 1968), pp. 34-66.

L.J. White, "The Determinants of the Relative Importance of Small Business," *Review of Economics and Statistics, 64* (February 1982a)

L.J. White, "Mergers and Aggregate Concentration" in M. Keenan and L.J. White, ds., *Mergers and Acquisitions: Current Problems in Perspective* (Lexington, Mass.: Lexington, 1982b).

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TABLE A3

Company Data from IRS Statistics of Income (continued)

Year	All Companies	Agriculture	Mining	Construction	Manu-facturing	Trans-portation	Whole-sale Trade	Retail Trade	Whole-sale & Retail Combined	Finance, In-surance, Real Estate	Services
1974	14.7	70.9	5.0	29.5	2.2	7.5	—	—	17.6	13.0	52.9
1975	13.6	70.4	4.9	27.4	2.2	6.5	—	—	16.2	10.3	52.6
				% of Sales in Companies with Less than $5,0				) in Sales			
1958	51.5%	97.0%	44.3%	80.7%	26.1%	22.5%	57.7%	75.4%	67.9%	43.4%	88.4%
1959	49.8	97.1	36.5	78.8	24.0	23.3	51.4	75.4	65.1	44.2	87.6
1960	50.2	97.0	44.2	81.9	25.2	21.7	56.9	74.0	66.7	40.9	87.9
1961	50.0	96.6	43.1	80.6	25.4	21.8	56.9	73.2	66.3	40.2	87.5
1964	49.7	95.6	39.2	81.0	25.3	22.2	57.0	72.9	66.2	40.2	86.4
1965[a]	—	—	—	—	—	—	—	—	—	—	—
1966[a]	—	—	—	—	—	—	—	—	—	—	—
1967[a]	—	—	—	—	—	—	—	—	—	—	—
1968	42.4	94.9	36.1	75.3	17.5	20.0	49.2	65.7	59.0	34.2	85.2
1969	41.9	90.7	33.5	70.9	17.7	18.9	50.2	65.4	59.2	33.3	82.9
1970	41.2	89.9	34.7	69.7	16.5	18.5	48.8	64.7	58.2	31.9	81.2
1971	40.6	90.6	32.2	70.1	15.8	17.7	46.8	62.9	56.4	31.5	81.6

[a]Data as reported by IRS are not suitable for time series comparison.

TABLE A3

Company Data from IRS Statistics of Income (continued)

Year	All Companies	Agriculture	Mining	Construction	Manu-facturing	Trans-portation	Whole-sale Trade	Retail Trade	Whole-sale & Retail Combined	Finance, In-surance, Real Estate	Services
1972	38.2	89.3	28.2	68.7	14.5	17.0	44.1	59.2	52.8	30.3	80.2
1973	36.3	87.1	23.8	69.6	13.0	17.7	40.6	56.7	49.4	28.6	78.5
1974	32.4	88.5	15.6	67.3	10.7	16.2	—	—	45.6	26.0	76.3
1975	30.7	85.8	14.8	63.5	10.7	14.6	—	—	43.8	21.5	75.5
					Gini Coefficients						
1958	0.454	0.316	0.464	0.426	0.465	0.480	0.429	0.380	0.408	0.458	0.383
1959	.456	.334	.456	.423	.466	.480	.431	.386	.412	.459	.386
1960	.456	.333	.460	.422	.466	.480	.435	.387	.413	.461	.385
1961	.457	.336	.463	.426	.466	.480	.438	.390	.416	.462	.390
1964	.457	.346	.467	.427	.464	.479	.435	.390	.414	.461	.391
1965	.459	.356	.469	.425	.465	.477	.439	.396	.417	.469	.398
1966	.460	.358	.472	.429	.464	.478	.438	.396	.417	.466	.400
1967	.460	.362	.466	.430	.466	.477	.439	.399	.417	.467	.400
1968	.463	.369	.472	.429	.471	.479	.432	.406	.422	.469	.403

TABLE A3

Company Data from IRS Statistics of Income (continued)

Year	All Companies	Agriculture	Mining	Construction	Manu-facturing	Trans-portation	Whole-sale Trade	Retail Trade	Whole-sale & Retail Combined	Finance, In-surance, Real Estate	Services
1969	.463	.378	.475	.434	.470	.481	.432	.409	.424	.469	.406
1970	.464	.382	.476	.434	.473	.481	.432	.410	.425	.471	.411
1971	.464	.380	.479	.432	.474	.481	.440	.416	.430	.464	.411
1972	.466	.390	.478	.432	.475	.482	.441	.425	.436	.473	.414
1973	.468	.393	.482	.430	.478	.482	.440	.426	.439	.475	.417
1974	.471	.394	.487	.432	.482	.483	—	—	.443	.477	.422
1975	.472	.390	.485	.436	.482	.485	—	—	.445	.478	.417

Source: U.S. Internal Revenue Service, *Statistics of Income*, various years.